

REMARKS

The Application has been carefully reviewed in light of the Office Action dated January 12, 2004 (Paper No. 5). Claims 1 to 20 are in the application, of which Claims 1 and 11 are the independent claims. Claims 1 to 11 and 18 to 20 are being amended. Reconsideration and further examination are respectfully requested.

By the Office Action, Claims 1 to 20 are rejected under 35 U.S.C. § 103(a) over U.S. Patent 5,933,595 (Iizuka) and U.S. Patent 5,848,296 (Suzuki). Reconsideration and withdrawal of the rejection are respectfully requested.

The present invention generally concerns retrieving an IPL program from storage external for processing by a system. More particularly, a control unit of the system stops operation of the system's central processing unit, receives an IPL program from an external source via an external communication means of the system, stores the received IPL program in the system's writeable memory starting with an address area of the memory at which the CPU is to start reading once it is restarted. Thereafter, the control means causes the CPU to resume operation, and the CPU initiates the IPL program by reading the program from the memory at the start address.

By virtue of this arrangement, it is possible to use external storage for storing an IPL program instead of using the system's memory, such as read-only memory, for storing the IPL program.

Turning to the specific language of the claims, Claim 1 defines a system comprising a central processing unit, a writable memory, an external communication means, an operation mode selection means and a control means. The control means is for

stopping operation of the central processing unit, mapping to an address area in the writable memory which includes a start address at which the central processing unit is to start reading upon resuming operation, and writing to the memory starting at the start address an IPL program received from an external source through the communication means when an IPL operation mode is selected by the operation mode selection means, and for thereafter resuming operation of the central processing unit such that the central processing unit reads the memory from the start address and initiates the IPL program written to the memory from the external source.

The applied art, namely Iizuka and Suzuki, is not seen to disclose each and every feature of the invention, particularly with respect to the features of a control means of a system: 1) stopping operation of the system's central processing unit, 2) mapping to an address area of memory which includes a start address at which the central processing unit is to start reading upon resumption of operation, 3) writing to the system's memory starting at the start address an IPL program received from an external source through an external communication means, and 4) thereafter resuming operation of the central processing unit such that the central processing unit reads the memory from the start address and initiates the IPL program written to the memory from the external source.

Iizuka is seen to describe using a read only memory (ROM) of the system to store an IPL program, such that under normal processing the system's central processing unit executes the IPL program by accessing the system's ROM. In the case that the IPL program stored in ROM is to be updated, the central processing unit transfers the current version of the IPL program from ROM to RAM and executes the IPL program's change

program to update ROM.

Referring to Figure 5 and the description commencing at col. 8, line 22 of Iizuka, under normal operations, when the system is powered on, the central processing unit reads from the system's ROM and runs the IPL program retrieved from the ROM. If the system reads in keyboard input that indicates a change is to be made to the IPL program stored in the system's ROM, the IPL program is read from the system's ROM and stored in the system's RAM. The central processing unit then executes a memory change program of the IPL program to load the updated IPL program from the external computer first in RAM and then into ROM. If the contents of ROM are successfully overwritten, the system notifies the operator, and the operator in turns a change-over switch to the "on" position so that when the system is powered off and then back on again the IPL program is again read from the system's ROM.

Thus, Iizuka is not seen to describe a control means that stops operation of the central processing unit while an IPL program is received from an external source and written to memory. According to Iizuka, it is by operation of the central processing unit executing the change program that the IPL program is transferred from the external computer and written first to RAM and then to ROM.

Suzuki has been reviewed and is not seen to remedy the deficiencies of Iizuka. More particularly, Suzuki is seen to describe a host computer's central processing unit operating to load a disk drive's IPL program which is executed by the host computer's central processing unit to initialize the disk drive.

Thus, the applied art is not seen to disclose the features of: 1) stopping

operation of the system's central processing unit, 2) mapping to an address area of memory which includes a start address at which the central processing unit is to start reading upon resumption of operation, 3) writing to the system's memory starting at the start address an IPL program received from an external source through an external communication means, and 4) thereafter resuming operation of the central processing unit such that the central processing unit reads the memory from the start address and initiates the IPL program written to the memory from the external source.

Therefore, for at least the foregoing reasons, Claim 1 is believed to be in condition for allowance. Further, Applicants submit that Claims 11 is believed to be in condition for allowance for at least the same reasons.

The remaining claims are each dependent from the independent claims discussed above and are therefore believed patentable for the same reasons. Because each dependent claim is also deemed to define an additional aspect of the invention, however, the individual consideration of each on its own merits is respectfully requested.

In view of the foregoing, the entire application is believed to be in condition for allowance, and such action is respectfully requested at the Examiner's earliest convenience.

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Respectfully submitted,


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